

L 18237-63

ACCESSION NR: AP3006375

caused by the ordering of the  $\beta$ -phase. A further increase in  $\alpha$  at 650--700C and a subsequent decrease at 800C are explained by precipitation of the  $\gamma'$ -phase from the  $\beta$ -phase. The changes in  $\alpha$  observed at 400--800C in specimens cooled at the rate of 250--300C/hr seem to be associated with the appearance and subsequent disappearance of the K-state. Orig. art. has: 4 figures.

ASSOCIATION: Kiyevskiy institut Grazhdanskogo vozdushnogo flota (Kiev Institute of the Civil Air Fleet)

SUBMITTED: 17Oct62

DATE ACQ: 27Sep63

ENCL: 01

SUB CODE: MA, ML

NO REF SOV: 005

OTHER: 001

Card 3/43

ACCESSION NR: APL020302

S/0139/64/000/001/0093/0098

AUTHORS: Arbuzov, M. P.; Chuprina, V. G.

TITLE: Oxidation of alloys in the system  $\text{Ni}_3\text{Al}-\text{Ni}_3\text{Nb}$

SOURCE: IVUZ. Fizika, no. 1, 1964, 93-98

TOPIC TAGS: oxidation,  $\text{Ni}_3\text{Al}$ ,  $\text{Ni}_3\text{Nb}$ , oxidation potential, oxidation rate, nickel, aluminum, niobium

ABSTRACT: This continuation of the authors' previous work (Issledovaniya po zharoprochnym splavam, 8, Izd. AN SSSR, 1962; Izv. vuzov SSSR, Fizika, no. 5, 82, 1963) considers oxidation at different temperatures and for different periods of time. Samples were prepared as in the preceding experiments. The oxidation was studied by means of suspensions. The alloys were oxidized in a muffle furnace, in a porcelain boat, at temperatures of 700, 800, and 900C for two hours. The oxidation factor,  $q$ , was considered to be the ratio of weight increment (in mg) to the oxidized surface of the sample (in  $\text{cm}^2$ ). It was found that at 700C  $\text{Ni}_3\text{Nb}$  has a  $q$  value 40 times that of  $\text{Ni}_3\text{Al}$ . In the alloys,  $q$  increased with an increase in concentration of Nb, which is much more oxidizable than either Ni or

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ACCESSION NR: AP4020302

Al. At temperatures of 600-800C and 950-1000C,  $q^2$  depends linearly on time for all periods of oxidation tested. But at temperatures in between those limits the relation is linear only at first, diverging at long periods of oxidation. These results are explained on the assumption that niobium is responsible for the effects noted. A study of the behavior of  $Nb_2O_5$  tends to confirm this. Two modifications of this oxide occur, and the transition from one form to the other occurs in the 800-850C range. Studies of Ni and Al show no such irregularity. The authors conclude that the effects observed are therefore due to the transition  $\alpha-Nb_2O_5 \rightarrow \beta-Nb_2O_5$ . Orig. art. has: 6 figures.

ASSOCIATION: Kiyevskiy institut Grazhdanskogo vozdushnogo flota. (Kiev Institute of the Civil Air Fleet)

SUBMITTED: 29Oct62

DATE ACQ: 31Mar64

ENCL: 00

SUB CODE: PH

NO REF SOV: 005

OTHER: 012

Card 2/2

ACCESSION NR: AP4013092

S/0126/64/017/001/0045/0048

AUTHORS: Arbuzov, M. P.; Varfolomeyev, N. M.

TITLE: Deformation effect on the position of Curie point of cementite

SOURCE: Fizika metallov i metalloved., v. 17, no. 1, 1964, 45-48

TOPIC TAGS: iron, Armco iron, U10 steel, steel, Curie point of cementite, cementite, deformation effect on cementite, steel hardening, hardening, annealing, steel annealing

ABSTRACT: A series of magnetometric investigations of annealed and mechanically hardened carbon steel were carried out in order to determine the deformation effect on the position of the Curie point of cementite. Some of the samples were held at 300, 400, 500 and 615C for one hour in order to study the position of the Curie point during this process. The samples consisted of Armco iron and of steel U10. They were heated to 750C, held for  $1\frac{1}{2}$  hours at 710C, and were then cooled in the oven. Some of the samples underwent uniaxial compression (75% of deformation). The curves showing the relation of the saturation magnetization to temperature were recorded (during a continuous heating of samples) by an Akulov anisometer in the field intensities of  $1/\pi \times 10^6$  a/m and  $5/4\pi \times 10^6$  a/m (the results obtained Cord 1/2

ACCESSION NR: AP4013092

at both intensities were identical). It was established that the Curie point of cementite in the deformed steel samples occurred at higher temperatures (260-270C) than in the nondeformed annealed steel. During heating (which removed the plastic deformation effect) the Curie point moved to its normal position at 210C. The authors state that no definite conclusion concerning this effect can be made yet because of insufficient experimental data. They believe, however, that the displacement of the Curie point in the course of deformation was not related to the transformation of cementite into another carbide. Orig. art. has: 3 figures.

ASSOCIATION: Kiyevskiy institut GVF ( Kiev Institute GVF)

SUBMITTED: 28Dec62

DATE ACQ: 26Feb64

ENCL: 00

SUB CODE: ML, PH

NO REF SOV: 013

OTHER: 005

Card 2/2

ACCESSION NR: AP4017351

S/0126/64/017/002/0197/0200

AUTHORS: Arbuzov, M. P.; Pavlyukov, A. A.

TITLE: X ray analysis of the ANKO 4 alloy structure at 1023 to 1173K  
(750 to 900C)

SOURCE: Fizika metallov i metallovedeniye, v. 17, no. 2, 1964, 197-200

TOPIC TAGS: ANKO 4 alloy, structure variation, hardening effect, tempering effect, high temperature effect, gamma phase, alpha phase, lattice parameter variation

ABSTRACT: The hardened and then tempered ANKO-4 single crystals were studied in the monochromatic radiation  $\text{Co-K}\alpha$ . The crystals were grown in a Tamman oven by a slow cooling of the molten metal to 1573K. They were homogenized at the same temperature for 10 hours, and were hardened in water. Their chemical composition proved to be identical with that of the original ANKO-4 alloy. The cylindrical samples cut from the crystals were 5-7 mm long and 1.3-1.5 mm in diameter. Their axes lay near the direction  $[001]_{\alpha}$ . The samples were tempered at 773-1173K and were etched to the diameter of 1 mm. The procedure followed in the x-ray analysis was described by R. D. Heidenreich and E. A. Nesbitt (J. Appl. Phys.,

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ACCESSION NR: AP4017351

1952, 23, 352). The use of the single crystals made it possible not only to study the interference pattern and to determine the reflection angles of the  $\gamma$ -phase, but also to draw the polar diagrams for many lines of this phase. These diagrams (see Fig. 1 of the Enclosure) showed that the  $\gamma$ -phase was oriented properly with respect to  $\alpha'$ -phase axes. This orientation is described as:

$(111), \parallel (011), [10\bar{1}], \parallel [\bar{1}\bar{1}1]$ .

The poles corresponding to the above orientation are marked by open circles, and those actually found on the x-ray patterns are shown by hachured circles. It was established that the  $\gamma$ -phase with a cubic face-centered lattice (parameter  $3.62 \text{ \AA}$ ) is formed during the tempering process at  $1023\text{K}$ , and that there exists a geometrical relation between the crystalline lattices of the  $\gamma$ -phase and of the solid solution ( $\alpha'$ -phase). Orig. art. has: 2 figures.

ASSOCIATION: Institut metallokeramiki i spetsial'nykh splavov AN UkrSSR  
(Institute of Metallo ceramics and Special Alloys AN UkrSSR)

SUBMITTED: 02Apr63

DATE ACQ: 18Mar64

ENCL: 01

SUB CODE: MM

NO REF SOV: 007

OTHER: 006

Card 2/3

ACCESSION NR: AP4017351

ENCLOSURE: 01

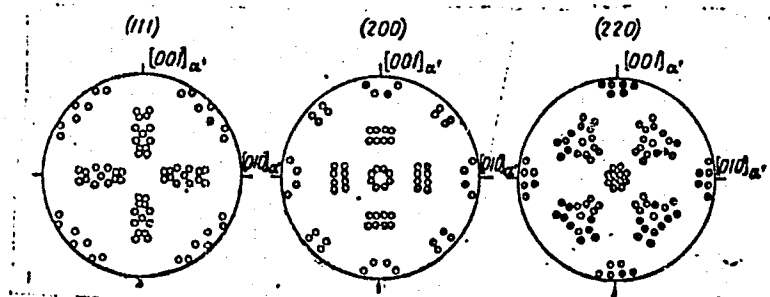


Fig. 1. Polar diagrams of the lines  $(111)$ ,  $(200)$ , and  $(220)$  of the  $\gamma$ -phase.

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L 16082-65 EWT(m)/EWP(e)/EPF(n)-2/EWA(d)/EPR/EWP(t)/EWP(b) Ps-4/Pu-4 IJP(c)/  
 ASD(a)-5/ASD(m)-3 MJW/JD/J3/AT/WH  
 ACCESSION NR: AP5001941 S/0126/64/018/022/0283/0287

AUTHOR: Arbuzov, N. P.; Khayenko, B. V. B

TITLE: Study of the size of mosaic blocks and microdeposits of the carbide  $\text{Fe}_x\text{C}$  of low-tempered steel 27<sup>x</sup>

SOURCE: Fizika metallov i metallovedeniye, v. 18, no. 2, 1964, 283-287

TOPIC TAGS: steel, carbide, crystal structure, tempering, crystal defect/U15 steel

Abstract: A study was made of the fine crystal structure of the carbide  $\text{Fe}_x\text{C}$  of U15 steel in the range of tempering temperatures between 423 and 523°K. <sup>18</sup>  
 It was shown that the fine-structure characteristics remain virtually unchanged in this range. The sizes and shapes of the mosaic blocks of the carbide  $\text{Fe}_x\text{C}$  were found, and the magnitude of the lattice defects was determined. Orig. art. has 3 figures and 1 table.

ASSOCIATION: Institut metallokeramiki i spetsialnykh AN UkrSSR (Institute of Powder Metals and Special Alloys, AN UkrSSR)

Card 1/2

L 00050-66

EPF(c)/IPF(n)-2/EWT(m)/ENP(b)/ENP(t)

IJP(c) JD/JG/WB

ACCESSION NR: AP5025453

UR/0139/65/000/002/0129/0133

AUTHOR: Arbuzov, M. P.; Chuprina, V. G.

TITLE: Study of the oxidation process of niobium and its oxide structures

SOURCE: IVUZ. Fizika, no. 2, 1965, 129-133

TOPIC TAGS: niobium, oxidation

ABSTRACT: The results of investigating the oxidation kinetics for niobium in air at 500-1,000 C are presented along with data on x-ray analysis of the structure of oxides formed. It is shown that at temperatures up to 850° C the oxide  $\alpha\text{-Nb}_2\text{O}_5$  is formed which has a rhombic lattice. Above 850° C the  $\beta\text{-Nb}_2\text{O}_5$  oxide is formed which also has a rhombic lattice but whose lattice constants are almost twice the size of  $\alpha\text{-Nb}_2\text{O}_5$ . On the basis of the obtained results and literature data the physical nature of the oxidation of niobium at various temperatures is examined. Orig. art. has: 4 graphs and 1 table

ASSOCIATION: Institut metallokeramiki i spetsial'nykh splavov (Institute of Powder Metallurgy and Special Alloys)

Card 1/2

L 00050-66

ACCESSION NR: AP5025453

SUBMITTED: 30Sep63

NR REF SOV: 004

ENCL: 00

OTHER: 014

SUB CODE: IC, GC

JPRS

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Card 2/2

L 20066-65 EPR/EWT(m)/FMP(b)/T/EWA(d)/EWP(a)/EWP(w)/EWP(t) Ps-4/Pad LJP(c)/  
SSD/AFWL/ASD(f)-3/ASL(m)- JD/HW

ACCESSION NR: AP4044160

S/0126/64/018/002/0311/0312

AUTHOR: Arbuzov, M. P.; Zelenkov, I. A.

TITLE: The thermal expansion of certain transition metals and their alloys <sup>27</sup> B

SOURCE: Fizika metallov i metallovedeniye, v. 18, no. 2, 1964, 311-312

TOPIC TAGS: thermal expansion, <sup>14</sup> nickel, Armco iron, molybdenum, titanium,  
cobalt, aluminum, transition metal, nickel alloy <sup>27</sup> <sup>27</sup> <sup>27</sup> <sup>27</sup>

ABSTRACT: An investigation of the coefficient of thermal expansion of Ni, Arm-  
co iron, Mo, Ti, Co, Al, Ni<sub>3</sub>Al, Ni<sub>3</sub>Al, 5% Cr, Ni<sub>3</sub>(Al, 10% Cr), Ni<sub>3</sub>(Al, 5% Ti),  
Ni<sub>3</sub>(Al, 3% Mo), Ni<sub>3</sub>(Al, 3% W), Ni<sub>3</sub>Al plus 4% Mn and of other elements showed  
a sharp decline of the heat curve between 400 and 500 C in Co attributed to the  
polymorphic transformation <sup>15</sup>

$\alpha$ -Co  $\rightarrow$   $\beta$ -Co

The decrease in the coefficient of thermal expansion observed in pure metals re-  
gardless of the type of heat treatment applied, may be caused by the characteris-  
tic <sup>1/2</sup>

L 20066-65

ACCESSION NR: AP4044160

3

tic atomic structure of transition metals, and, possibly, the nature of the electronic structure of d-, s-levels. Furthermore, Ni and Fe alloys display a decrease in resistivity within the 500 C range and a disordering of the  $\text{Ni}_3\text{Fe}$ ,  $\text{Ni}_3\text{Mn}$  and  $\text{Ni}_3\text{Cr}$  compounds. The authors propose that the causes for the three phenomena may be analogous. Orig. art. has: 1 figure

ASSOCIATION: Institut metallokeramiki i spetsial'nykh splavov AN UkrSSR  
(Institute of Cermets and Special Alloys, AN UkrSSR)

SUBMITTED: 10Jul63

ENCL: 00

SUB CODE: MM

NO REF SOV: 007

OTHER: 002

Card 2/2

L 1314-66 EWT(m)/EPF(c)/EPF(n)-2/T/EWP(t)/EWP(z)/EWP(b)/EWA(c) LJP(c)

ACCESSION NR: AP5022263 JD/HW/JC/WB/ UR/0363/65/001/007/1121/1127  
MJW(CI) 546.74'621+546.74'882

AUTHOR: Arbuzov, M. P.; Chuprina, V. G.

TITLE: X-ray diffraction study of oxidation of alloys of the Ni sub 3 Al-Ni sub 3 Nb system

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 7, 1965, 1121-1127

TOPIC TAGS: nickel alloy, aluminum alloy, niobium alloy, nickel compound, niobium compound, aluminum compound

ABSTRACT: The article, which continues the study of the oxidation of Ni<sub>3</sub>Al-Ni<sub>3</sub>Nb alloys, deals with the phase composition of the scale and the structure of the oxides of pure Ni<sub>3</sub>Al and Ni<sub>3</sub>Nb, and also alloys with 10, 35, 50, 80, 90, and 97 wt.% Ni<sub>3</sub>Nb. The phase analysis of the scale was performed by x-ray layer analysis, and the results are fully tabulated. The oxides NiO,  $\gamma$ -Al<sub>2</sub>O<sub>3</sub>, NiO·Al<sub>2</sub>O<sub>3</sub>,  $\alpha$ -Nb<sub>2</sub>O<sub>5</sub>,  $\beta$ -Nb<sub>2</sub>O<sub>5</sub>, NiO·Nb<sub>2</sub>O<sub>5</sub>, and nickel were found to be present in the scale. The distribution of these oxides and of Ni in the layers of the scale was investigated, and the following pattern was established in the scale

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ACCESSION NR: AP5022263

of  $\text{Ni}_3\text{Al}$ - $\text{Ni}_3\text{Nb}$  alloys oxidized at 600-1000°C:

$\text{NiO}$   
 $\text{NiO} \cdot \text{Al}_2\text{O}_3$ ,  $\text{NiO} \cdot \text{Nb}_2\text{O}_5$ ,  $\text{NiO}$   
 $\gamma\text{-Al}_2\text{O}_3$ ,  $\text{Nb}_2\text{O}_5$ ,  $\text{NiO}$ ,  $\text{Ni}$   
 $\text{NiO}$ ,  $\text{Ni}$ ,  $\text{Nb}_2\text{O}_5$   
 $\text{Ni}$ ,  $\text{Nb}_2\text{O}_5$   
 $\text{Ni}$

The presence of nickel in the scale is explained by the reduction reaction  
 $5\text{NiO} + 2\text{Nb} \rightleftharpoons \text{Nb}_2\text{O}_5 + 5\text{Ni}$ . Orig. art. has: 1 figure and 4 tables.

ASSOCIATION: Institut problem materialovedeniya Akademii nauk UkrSSR (Institute of  
 of Materials Science Problems, Academy of Sciences, UkrSSR)

SUBMITTED: 30Mar65

ENCL: 00

SUB CODE: MM, IC

NO REF SOV: 010  
 Card 2/2 *mlr*

OTHER: 002

ARBUZOV, M.P.; BARANTSEVA, I.G.

Crystal structure of martensite isolated from alloyed steel.  
Fiz. met. i metalloved. 19 no.1:158-160 Jan '65. (MIRA 18:4)

1. Institut problem materialovedeniya AN URSSR..



ARBUZOV, M.P.; PAVLYUKOV, A.A.; KHAYENKO, B.V.

X-ray study of structural transformations during the aging of the  
Anco-4 alloy. Part 1: Modulated structure. Fiz. met. i metalloved.  
19 no.3:462-465 Mr '65. (MIRA 18:4)

1. Institut problem materialovedeniya AN UkrSSR.

ARBUZOV, M.P.; PAVLYUKOV, A.A.; KHAYENKO, B.V.

X-ray study of structural transformations during the aging of the "anko-4" alloy. Part 2: Effects of anomalous scattering caused by the initial stages of the decomposition of solid solutions. Fiz. met. i metalloved. 19 no.4:530-535 Ap '65.  
(MIRA 18:5)

1. Institut problem materialovedeniya AN UkrSSR.

ARBUZOV, M.P.; ZELENKOV, I.A.

Thermal expansion of certain transition metals and alloys on their basis. Fiz. met. i metalloved. 18 no.2:311-312 Ag '64.

(MIRA 18:8)

1. Institut metallokeramiki i spetsial'nykh splavov AN UkrSSR.

ARBUZOV, M.P.; VAYSHTEYN, E.Ye.; KOTLYAR, B.I.; KRASNOVA, V.V.

X-ray K-absorption spectra of iron in carbide phases formed during the quenching of hardened carbon steel. Fiz. met. i metalloved. 19 no.6:835-839 Je '65.  
(MIRA 18:7)

1. Institut problem materialovedeniya AN UkrSSR i Odesskiy pedagogicheskii institut imeni Ushinskogo.

ARBUZOV, M.P.; PAVLYUKOV, A.A.; KHAYENKO, B.V.

X-ray study of structural transformations during the aging of the ANCO-4 alloy. Part 3: State and crystal phase structure formed during the aging of the ANCO-4 alloy. Fiz. met. i metalloved. 20 no.1:33-37 J1 '65.

(MIRA 18:11)

1. Institut problem materialovedeniya AN UkrSSR.

L 14999-66 EWT(m)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) IJP(c) MJW/JD/HW/MJW(CL)

ACC NR: AP5028562 (N)

SOURCE CODE: UA/0126/65/G20/005/0723/0727

AUTHOR: Arbuzov, M. P.; Pavlyukov, A. A.

ORG: Institute of Problems of Materials Science AN UkrSSR (Institut problem materialovedeniya AN UkrSSR)

TITLE: A study of the decomposition of alnico-titanium supersaturated solid solutions

SOURCE: Fizika metallov i metallovedeniye, v. 20, no. 5, 1965, 723-727

TOPIC TAGS: metal physics, crystal lattice, metalloid alloy, metal aging, magnetic property, single crystal

ABSTRACT: X-ray analysis was made of the aging properties of an alnico-titanium alloy, quenched and aged at temperatures up to 750°C. It was demonstrated that a modulated structure (formed prior to the appearance of the stable  $\alpha$ -phase) precipitate in the initial stages of decomposition. An ordering process was observed in the matrix alloy lattice during aging. The alloy had a composition of 34% Co, 15% Ni, 7% Al, 4% Cu, 5% Ti and 35% Fe. Above 1250°C, this alloy formed an ordered  $\alpha'$ -

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UDC: 548.7

I 14999-66

ACC NR: AP5028562

phase (BCC of FeAl type) and the BCC  $\alpha$ -phase and the FCC  $\gamma$ -phase below 800°C. Monochromatic  $\text{CoK}_\alpha$  radiation was used to obtain x-ray patterns for stationary, rotating and oscillating single crystals. In the quenched samples, interference was noted on the pattern as a result of the ordering in the  $\alpha'$ -solid solution; the lattice spacing of this phase was 2.86 angstrom. With increase in aging, the intensity of reflected halos in the patterns strengthened, while the lattice-matrix correspondence improved. Data are presented in tabular form for the reflection angles of the auxiliary lines (given hkl plane) for stationary specimens and for different heat treatments. At aging temperatures of 700 and 750°C, the  $\alpha$ -phase reflections became prominent. Pole figures were shown for the auxiliary lines of the cubic lattice having the indices (111), (311), (133) and (511). It was established that the precipitate had a FCC lattice with a lattice parameter of 5.72 angstrom oriented with  $\langle 100 \rangle$  parallel to  $\langle 100 \rangle$  of the matrix. The secondary reflections confirmed that ordering occurred in the matrix which was of the  $\text{Fe}_3\text{Al}$  type. Orig. art. has: 2 figures, 1 table.

SUB CODE: 11/

SUBM DATE: 05Nov65/

ORIG REF: 002/

OTH REF: 005

magnetic alloy 18

Card 2/2

L 33111-66 EWT(m)/EWP(t)/ETI IJP(c) JD  
ACC NR: AP6024084 SOURCE CODE: UR/0226/66/000/004/0074/0078

AUTHOR: Arbuzov, M. P.; Khayenko, B. V. 64

ORG: Institute of Problems in Materials Science, AN UkrSSR, (Institut problem mater:alovedeniya AN UkrSSR) B

TITLE: Radiographic investigation of the distribution of electron density in titanium carbide

SOURCE: <sup>27</sup> Poroshkovaya metallurgiya, no. 4, 1966, 74-78

TOPIC TAGS: radiography, electron density, carbide, titanium compound, chemical bonding, negative ion, positive ion

ABSTRACT: The authors use the data in the literature for determining the distribution of electron density in titanium carbide. It is found that there are several types of composite bonding between the atoms in this compound. The titanium atoms are positively ionized with a charge of +4, while the carbon atoms are negatively charged. The composite bonding between neighboring titanium and carbon atoms has an ionic component. Metallic bonding is most probable between titanium atoms. Orig. art. has: 3 figures, 3 formulas, and 1 table. [JPRS]

SUB CODE: 20, 14, 11 / SUBM DATE: 19Oct65 / ORIG REF: 003 / OTH REF: 002

Card 1/1 *lp*

0915

1648

Card 1/3

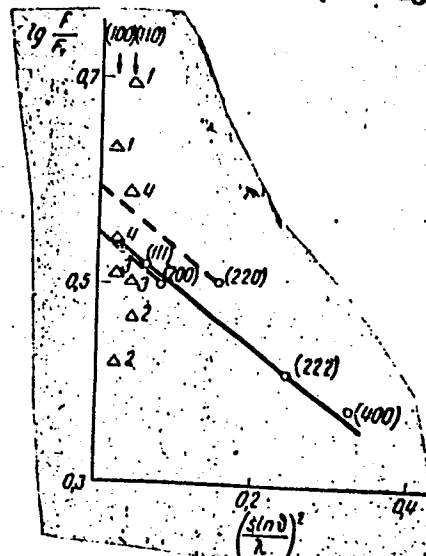
UDC: 548.4



ACC NR: AP6018943

Here B and C are constants, and  $F_T$  is calculated either after R. E. Watson and A. J. Freeman (Acta cryst., 1961, 14, 27), or after L. H. Thomas and K. Umeda (J. Chem. Phys., 1957, 26, 293) and N. F. Kravtsova and V. P. Tsvetkov (Ukr. fiz. zhurnal, 1962, 7, 1355). The experimental results are presented in graphs and tables (see Fig. 1).

Fig. 1. Distribution of calculated points of superstructural reflections (100) and (110) for  $Ni_3Al$ , alloyed with W (alloy 4), according to different structural types of W atoms distributions. 1 -  $Ni_3(AlW)$ ; 2 -  $(NiW)_3(AlNi)$ ; 3 - statistical average distribution of W atoms; 4 - 1/3 of W atoms in Ni sublattice and 2/3 in Al sublattice.



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ACC NR: AP6018943

It is concluded that Ti and Cr atoms displace Al atoms, and that W displaces both Ni and Al atoms in the compound  $Ni_3Al$ . Orig. art. has: 2 tables, 1 graph, and 2 equations.

SUB CODE: 11/ SUBM DATE: 02Aug65/ ORIG REF: 010/ OTH REF: 007

Card 3/3

ACC NR: AT7003877

(A)

SOURCE CODE: UR/0000/66/000/000/0064/0071

AUTHOR: Arbuzov, M. P.; Kachkovskaya, E. T.; Khayenko, B. V.

ORG: none

TITLE: Study of the electronic structure and atomic structure of TiC and TiO

SOURCE: AN BSSR. Institut fiziki tverdogo tela i poluprovodnikov. Khimicheskaya svyaz' v poluprovodnikakh i termodinamika (Chemical bond in semiconductors and thermodynamics). Minsk, Nauka i tekhnika, 1966, 64-71

TOPIC TAGS: titanium compound, oxide, carbide, chemical bonding, x ray diffraction study, atomic structure, electron density

ABSTRACT: In view of the little attention paid in the past to the state of the titanium, carbon, oxygen, and nitrogen atoms in TiC, TiO, and TiN, and consequently to the nature of the chemical bond in these compounds, the authors carried out an x-ray diffraction investigation to determine the atomic scattering factors of Ti, C, and O in TiC and TiO and the distribution of the electron density in the crystal lattice of titanium carbide and oxide. The study was made in filtered Mo-K $\alpha$  radiation, using a scintillation procedure for recording the reflexes. The results showed that at  $\sin\theta/\lambda$  ( $\theta$  - spectral angle,  $\lambda$  - wavelength), the atomic scattering factors of Ti and C in TiC and of O in TiO deviate from the theoretical values, indicating that the atomic factors at these angles vary with variation of the state of the atoms. These variations point to specific changes in the distribution of the electron density in

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UDC: 541.57

ACC NR: A17003877

these compounds compared with neutral atoms. A study of the distribution of the electron density has shown that the latter has the maximum value between the atoms in the [100] direction, between the nearest Ti and C or O atoms, thus indicating the presence of an electronic "bridge" between these atoms. These results lead to an estimate of the number of electrons which should be bound with the atoms Ti, C, and O in TiC and TiO. From the numbers of the electrons and from the estimated atomic radii of Ti in TiC and TiO it is concluded that the Ti atoms in TiC are ionized with degree of ionization close to +C, and the carbon having a negative charge ( $\sim -1$ ). In TiO the Ti atoms have a slight positive charge but the oxygen atoms retain all their electrons. A scheme of the electronic structure of the carbide and oxide of titanium is proposed on the basis of the results, and it is concluded that several types of bond are realized between the atoms of these compounds, each bond constituting a combination of several factors. Orig. art. has: 4 figures, 1 formula, and 1 table.

SUB CODE: 20, 07/

SUBM DATE: 20Aug66/

ORIG REF: 009/

OTH REF: 007

Card 2/2

ARBUZOV, N., kand.tekhn.nauk; LIPKIN, P.

Efficient precast reinforced concrete construction  
elements of rural buildings. Sel'.stroi. 15 no.7:  
23-25 J1 '60. (MIRA 13:8)

1. Korrespondent zhurnala "Sel'skoye stroitel'stvo" (for  
Lipkin).

(Farm buildings)  
(Precast concrete construction)

ARBUZOV, N., kand.tekhn.nauk

Economical floors in livestock buildings. Sel'. stroi.  
15 no.3:19-20 Mr '60. (MIRA 16:2)  
(Floors) (Barns)

KULIKOV, P., inzh.; ARBUZOV, N., inzh.--mekhanik; BORISOV, K., inzh.--konstruktor

Textbook for diesel engine operators and repairmen. Mor. flot 24 no.9;  
45 S '64. (MIRA 18:5)

1. Tekhnicheskii otdel Izmail'skogo porta (for Kulikov).

ACC NR: AP6026986

SOURCE CODE: UR/0084/66/000/008/0012/0013

AUTHOR: Arbuzov, N. (Candidate of technical sciences); Trigoni, V. (Candidate of technical sciences)

ORG: none

TITLE: The village airfield-what it should be like

SOURCE: Grazhdanskaya aviatsiya, no. 8, 1966, 12-13

TOPIC TAGS: airfield, agriculture, helicopter, aircraft, chemical spray, rural airfield, village airfield

ABSTRACT: The tasks of agricultural aviation for the Soviet Five-Year plan are outlined, and two types of airfields designed to serve as bases for agricultural aviation aircraft and helicopters specialized in chemical spraying are described. the first type is a permanent airdrome with facilities for stationing, servicing, and supplying agricultural aviation aircraft; the second is an airstrip type of airfield designed for seasonal operation only. Both types were designed by the "Aeroprojekt". Diagrams showing the dimension layout of airfields, runways,

Card 1/2



ACC NR: AP6026986

approach obstructions, and chemical safety zones are presented. The source quotes the state plan as calling of 25,000 agricultural airfields of which one third will be permanent airfields and two thirds seasonal. It is estimated that by 1970 135 million hectares of cultivated land will be serviced by the agricultural aviation. Orig: art. has: 5 diagrams and 4 photos. [KP]

SUB CODE: 01/SUBM DATE: none/

Card 2/2

ARBUZOV, N.A.

Automatic pumping of water from a closed tank. Prom.energ.  
15 no.2:22-23 F '60. (MIRA 13:5)  
(Automatic control) (Liquid level indicators)

ARBUZOV, N.A.

Efficient method for discharging condenser batteries in systems with  
voltages up to 1000 volts. Prom.energ. 16 no.11:28-29 N '61.  
(MIRA 14:10)

(Electric capacitors) (Electric power distribution)

ARBUZOV, N.M.

USSR/Medicine - Antibiotics

Mar/Apr 52

"Treatment of Otogenic Intracranial Complications by Injections of Penicillin Into the Carotid Artery," N. M. Arbuzov, Diseases, Dnepropetrovsk Med Inst Clinic of Ear, Nose, and Throat.

"Vest Oto-Rine-Laringol" Vol XIV, No 2, pp 32-34

Advocates the injection of penicillin into the carotid artery. This is a modified version of the method used by Acad N. N. Burdenko in 1942 for the treatment of intracranial wounds. Describes the method of administration, and claims highly satisfactory results in the treatment of meningitis, leptomeningitis, and purulent otogenic diseases with intracranial complications.

224T60

ARBUZOV, N.M.

Intracarotid injections of penicillin in a heparin solution. Vrach.  
delo no.11:1157-1159 N '56. (MIRA 10:3)

1. Klinika bolezney ucha, gorla i nosa (zaveduyushchiy - professor  
L.A.Lukovskiy) Dnepropetrovskogo meditsinskogo instituta.  
(PENICILLIN) (HEPARIN) (INJECTIONS, INTRA-ARTERIAL)

ARBUZOV, N.M.,

Professor Leon Antonovich Lukovskii; 30th anniversary of his  
medical, pedagogic, scientific and social activities. Vest.oto-  
rin. 18 no.5:78 S-0 '56. (MLRA 9:11)  
(LUKOVSKII, LEON ANTONOVICH, 1903- )

USSR/General Problems of Pathology. Experimental Therapy

U-6

Abs Jour : Ref Zhur - Biol., No 13, 1958, No 61131

Author : Arbuzov N.M.

Inst : -

Title : An Experimental Model of an Epithelial Tumor (Braun-Pierce)  
of the Larynx in a Rabbit

Orig Pub : Vestn. oto-laringologii, 1957, No 4, 32-34

Abstract : Endolaryngeally by using the Bruning's broncho-esophagoscope, or exolaryngeally by means of a puncture of the skin, a Braun-Pierce tumor was induced into the larynx of a rabbit. One gram of the tumor was pulverized in a mortar and mixed with 5 milliliters of physiological solution. This suspension in a dose of 0.5-0.7 milliliters was injected into the mucus membrane of the larynx. Five to 15 days later, a swelling appeared on this spot. On the 7th to 35th day, the tumor caused the death by asphyxiation of the animal. According to histological structure, character of growth and development, the tumor was closely similar to the original

Card : 1/2

ARBUZOV, N.M.; SKVIRSKAYA, A.A.; TYTAR', G.M.

Honored Scier'ist of the Ukrainian S.S.R. Professor Leon Antonovich  
Lukovskii, 1903 - ; on his 60th birthday. Vest. otorin. 25 r. 5:  
104 S-O '63. (MIRA 17 4



ARBUZOV, N. T.

ARBUZOV, N. T. - Inzh. 1, SHERENTISIS, A. A. - Kand Tekh. Nauk

Nauchno-issledovatel'skiy institut stroitel'noy tekhniki Akademii Arkhitektury SSSR  
Konstruktsii mnogoetazhnogo zhilogo domas kirpichnymi nesushchimi stenami Page 67

SO: Collection of Annotations of Scientific Research Work on Construction, completed  
in 1950.  
Moscow, 1951

VOLZHENSKIY, A.V., professor, doktor tekhnicheskikh nauk; KOGAN, G.S.,  
kandidat tekhnicheskikh nauk; ARBUZOV, N.T., kandidat tekhnicheskikh nauk;  
SOROKER, V.I., kandidat tekhnicheskikh nauk; redaktor;  
GIMPEL'SON, A.Z., redaktor; LYUDKOVSKAYA, N.I., tekhnicheskii  
redaktor

[Gypsum-concrete panels for partitions and inner lining of outside  
walls] Gipsobetonnye paneli dlia peregorodok i vnytrennei obli-  
tsovki naruzhnykh sten. Moskva, Gos. izd-vo lit-ry po stroitel'-  
nym materialam, 1955. 184 p.  
(MLRA 9:7)

1. Chlen-korrespondent Akademii arkhitektury SSSR (for Volzhenskii)  
(Concrete slabs)

APR 1957  
SHERENTSIS, A.A., kand.tekhn.nauk, red.; ~~ABRUZOV, N.T.~~, kand.tekhn.nauk,  
red.; GOLUBENKOVA, L.A., red. izd-va; BOROVMEV, N.K., tekhn.red.

[Results of the 1956 All-Union competition for structures for  
residential building and roofs of schools, club houses and  
motion-picture theaters] Itogi otkrytykh vsesoiuznykh konkursov  
1956 g. na konstruktsii dlia zhilishchnogo stroitel'stva i  
pokrytii salov shkol, klubov i kinoteatrov. Moskva, Gos.izd-vo  
lit-ry po stroit.i arkhitekt., 1957. 81 p. (MIRA 11:1)  
(Apartment houses) (Roofs)

~~ARBUZOV, N.T.~~, kand.tekhn.nauk; GROMOV, V.L., kand.tekhn.nauk; KURBATOV,  
D.I., kand.tekhn.nauk; MOROZOV, N.V., kand.tekhn.nauk; PILYUGIN,  
A.I., kand.tekhn.nauk; SHERETSIS, A.A., kand.tekhn.nauk; SHCHEPETOV,  
A.N., red.; KORSACK, Yu.Ye., red.; MATUSEVICH, S.M., tekhn.red.

[Manual of civil engineering] Spravochnik po grazhdanskomu stroitel'-  
stvu. Izd. 3-e, perer. i dop. Kiev. Gos.izd-vo tekhn. lit-ry USSR.  
Vol.2. 1958. 560 p. (MIRA 11:7)  
(Civil engineering)

ARBUZOV, N.T., kand.tekhn.nauk; GROMOV, V.L., kand.tekhn.nauk; GORSKIY, B.Z.,  
kand.tekhn.nauk; KALISHCHUK, A.L., kand.tekhn.nauk; KUNITSKIY, L.P.,  
kand.tekhn.nauk; KURBATOV, D.I., kand.tekhn.nauk; MOROZOV, N.V., kand.  
tekhn.nauk; PILYUGIN, A.I., kand.tekhn.nauk; PRIMAK, N.S., kand.tekhn.  
nauk; SEMBENTSOV, S.A., kand.tekhn.nauk; ULITSKIY, I.I., kand.tekhn.  
nauk; KHUTORYANSKIY, M.S., kand.tekhn.nauk; SHERENTSIIS, A.A., kand.  
tekhn.nauk; PINSKIY, Ye.A., inzh.; KARSAK, Yu.Ye., red.; PATSALYUK,  
P.M., tekhn.red.

[Civil engineering handbook] Spravochnik po grazhdanskomu stroitel'-  
stvu. Izd. 3-e, perer. i dop. Kiev, Gos. izd-vo tekhn. lit-ry USSR  
Vol. 1. 1958. 867 p. (MIRA 11:5)

(Civil engineering--Handbooks, manuals, etc.)

ARBUZOV, N.T., kand.tekhn.nauk; GROMOV, V.L., kand.tekhn.nauk; GORSKIY,  
B.Z., kand.tekhn.nauk; KALISHCHUK, A.L., kand.tekhn.nauk; KUNITSKIY,  
L.P., kand.tekhn.nauk; KURBATOV, D.I., kand.tekhn.nauk; MOROZOV, N.V.,  
kand.tekhn.nauk; PILYUGIN, A.I., kand.tekhn.nauk; PRIMAK, N.S.,  
kand.tekhn.nauk; SEMENTSOV, S.A., kand.tekhn.nauk; ULITSKIY, I.I.,  
kand.tekhn.nauk; KHUTORYANSKIY, M.S., kand.tekhn.nauk; SHERENTSIY,  
A.A., kand.tekhn.nauk; PINSKIY, Ye.A., inzh.; KORSAK, Yu.Ye., red.;  
MATUSEVICH, S.M., tekhn.red.

[Manual on civil engineering] Spravochnik po grazhdanskomu stroi-  
tel'stvu. Izd.4., ispr. Kiev, Gos.izd-vo tekhn.lit-ry. Vol.1.  
1959. 867 p. Vol.2. 1959. 560 p. (MIRA 12:8)  
(Civil engineering)

MINTS, M.S.; APTERMAN, I.Z.; PASS, S.A.; FEDOROV, N.N.; LAZAREVICH, S.K.,  
retsenzent; ARBUZOV, N.T., retsenzent; SAVEL'YEV, P.P., retsenzent;  
ZAREMBA, B.V., inzh., nauchnyy red.; MORSKOY, K.L., red.izd-va;  
RUDAKOVA, N.I., tekhn.red.

[Rating designs of large-panel apartment houses from the technical  
and economic point of view] Tekhniko-ekonomicheskaya otsenka  
konstruktivnykh reshenii krupnopanel'nykh zhilykh zdaniy. Moskva,  
Gos.izd-vo lit-ry po stroit., arkhitekt. i stroit.materialam, 1961.  
117 p.

(MIRA 14:6)

(Apartment houses)

(Precast concrete construction)

AF.BUZOV, Nikolay Terent'yevich, kand. tekhn. nauk; MANDRIKOV,  
Aleksandr Pavlovich, kand. tekhn. nauk; SOKOLOVA, G.S.,  
red.; SHESHNEVA, E.A., tekhn. red.

[Using precast reinforced concrete in rural construction]  
Primenenie sbornogo zhelezobetona v sel'skom stroitel'stve.  
Moskva, Izd-vo M-va sel'skogo khoz.RSFSR, 1962. 116 p.  
(MIRA 17:3)



...ARBUZOV, Nikolay Terent'yevich, kand. tekhn. nauk; MANDRIKOV,  
Aleksandr Pavlovich, kand. tekhn. nauk; SHESTOPAL, N.M.,  
inzh., nauchn. red.; GORDEYEV, P.A., red.

[Floor and roofs of residential and industrial farm build-  
ing Poly i krovli zhilykh i proizvodstvennykh sel'sko-  
khoziaistvennykh zdani. Moskva, Stroiizdat, 1964. 109 p.  
(MIRA 17:8)

MOROZOV, Nikolay Viktorovich, doktor tekhn. nauk; ARBUZOV, Nikolay Terent'yevich, kand. tekhn. nauk; GROMOV, Vasiliy Lukich kand. tekhn. nauk [deceased]; KALISHUK, Aleksandr Luk'yanovich, kand. tekhn. nauk; KURBATOV, Dmitriy Ivanovich, kand. tekhn. nauk; PILYUGIN, Mikhail Semenovich, kand. tekhn. nauk; KHUTORYANSKIY, Aleksandr Abramovich, kand. tekhn. nauk; SHERENT'SIS, Aleksandr Abramovich, kand. tekhn. nauk; LAVRIK, Gennadiy Ivanovich, arkh. MADERA, Georgiy Il'ich, inzh.; PINSKIY, Ye'im Aronovich, inzh.; SHKLYAR, Aleksandr Samoylovich, inzh.; BERGER, K.V., red.; VISHNEVYY, V.V., red.; ISHCHENKO, N.S., red.

[Manual on civil engineering] Spravochnik po grazhdanskomu stroitel'stvu. Izd.5., perer. i dop. Kiev, Budivel'nyk, 1965. 2 v. (MIRA 18:2)

ARBUZOV, O.B., ENGINEER

CAND TECH SCI

Dissertation: "Investigation of the Geometrical Parameters of the Cutting Part of Reamers."

15 June 49

Moscow Machine Tool Inst imeni I.V. Stalin.

SO Vecheryaya Moskva  
Sum 71

KONONENKO, S.G.; ARBUZOV, G.B., kmi. tekhn. nauk, retsenzent

[Machining deep holes] Obrabotka glubokikh otverstii.  
Moskva, Mashinostroeniye, 1964. 18 o. (MIRA 17:10)

АЛЕХУЗОВ, П.; РОГОВ, И.

Study of carbides separated from tempered steels. Akad. Nauk Ukr. S.S.R., Lab. Metallofiz., Sbornik Nauch. Rabot Lab. Metallofiz. '48, 66-71. (MLRA 3:2)  
(CA 47 no.22:12190 '53)

ARBUZOV, P. A.

Arbuzov, P. A. & Grochkin, H. P. "Organo-tin-phosphorus compounds. III. Synthesis of compounds with phenyl radicals attached to phosphorus." (p. 107)

SO: Journal of General Chemistry, (Zhurnal Obshchei Khimii), 1950, Vol. 20, No. 1

BA ARBUZOV, S.I.

3

Formation of azo dyes in colour-development. C. I. Arbusov, *J. appl. Chem., USSR*, 1950, 22, 222-223.—It has been proved, by extraction with EtOH, of the dye formed in colour-development of photographic plates with a solution containing  $p\text{-NH}_2\text{-C}_6\text{H}_4\text{-NMe}_2$  (I) and 1-phenyl-3-methylpyrazol-5-one (II), that the dye formed

during such a development is identical (m.p. 186-187.5°) with the dye formed by condensation of I and II in presence of a freshly-prepd. AgBr (m.p. 186-187.5°). It is also identical with the dye formed by the condensation of  $p\text{-NO-C}_6\text{H}_4\text{-NMe}_2$  with II (m.p. 187-188°). When the drying of the developed plates is rapid (e.g., a table fan is used), the purple colour of the plates does not change. When drying is slow the colour disappears almost completely. However, there is no decomposition of the dye as it can be extracted normally by EtOH from the grey-looking plates. The disappearance of the colour during slow drying is probably due to coagulation of the dye.  
I. B. J. ZARA.

ARBUZOV, S. I.

"Pharmacology of Some New Stimulants of the Nervous System (Phenatin and its Derivatives; Pyridoxphen, etc.): Their action on the Restorative and Compensatory Processes, furthermore on the Functional Condition of the Nervous System."

paper presented at the Second Hungarian Conference of Therapy and Pharmacological Research, Budapest, Hungary, 2-7 Oct 62

imeni S.M. Kirov, Lenin Order Medical Military Acad., Faculty of Pharmacology and Pharmacy, Leningrad.



ARBUZOV, S.I.

RT 116 (Influence of partial sympathectomy and vagotomy during hibernation in heterothermic animals). Vliianie chastičnoi simpatektomii i vagotomii na techenie zimnei spiachki u geterotermykh zhivotnykh. Doklady Akademii Nauk SSSR, 73(6): 1305-1308, 1950.

| COMMON ELEMENTS                                                                                                                                                                                                                                                                                            |  | PROCESS AND PROPERTIES INDEX                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <p>ARBUZOV, S.V.</p> <p>GA</p>                                                                                                                                                                                                                                                                             |  | <p>Finishing leather. S. V. Arbutov, I. N. Veretenkov, V. G. Grachev, S. A. Ulanov, and N. N. Shelyastin. U.S.S.R. 65,005, Feb. 28, 1910. Leather having a defective face side is coated on the flesh side with a fat-bitumen mixt. This mixt. comprises an emulsion of bitumen, mineral oil, proteinaceous substances, and sulfonated train oil. This treatment is followed by a treatment with formalin, and then by a finish by the usual methods. M. Huseh</p> |  |
| <p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>                                                                                                                                                                                                                                                     |  | <p>29</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |
| <p>SEARCHED INDEXED</p>                                                                                                                                                                                                                                                                                    |  | <p>RECEIVED DATE</p>                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
| <p>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100</p> |  | <p>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100</p>                                                                                                                                                         |  |

| ARBUZOV, S.V.                                                                                                                                                                                                                                                                                                                      |  |  |  |  |  |  |  |  |  | PROCESSES AND PROPERTIES INDEX |  |  |  |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|--------------------------------|--|--|--|--|--|--|--|--|--|
| <p>CA</p> <p>Black leather. I. N. Veretennikov, S. V. Arbuzov, K. P. Rgorchikova, and L. I. Burmistrova. U.S.S.R. 67, 107, Sept. 30, 1948. Leather is treated at pH 5-6 with an ext. of a vegetable tannin, then with a ferric salt soln. having a Schorlemmer basicity of 15-17%, and finally with a dichromate soln. M. Hosh</p> |  |  |  |  |  |  |  |  |  |                                |  |  |  |  |  |  |  |  |  |
| <p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>                                                                                                                                                                                                                                                                             |  |  |  |  |  |  |  |  |  |                                |  |  |  |  |  |  |  |  |  |
| <p>STONY SYMBOL</p>                                                                                                                                                                                                                                                                                                                |  |  |  |  |  |  |  |  |  | <p>STONY SYMBOL</p>            |  |  |  |  |  |  |  |  |  |
| <p>STONY SYMBOL</p>                                                                                                                                                                                                                                                                                                                |  |  |  |  |  |  |  |  |  | <p>STONY SYMBOL</p>            |  |  |  |  |  |  |  |  |  |

LA ARBUZOV, S.V.

29

Experience with the use of tannin PL. S. V. Arbutov  
and I. N. Veretennikov. *Legkaya Prom.* 11, 99-100 (1951).  
Tests were made with wet-salted sheepskin and pigskin.

Pretanning was with 0.6-1.1%  $\text{Cr}_2\text{O}_3$  (sheepskin) and 0.8-  
1.5%  $\text{Cr}_2\text{O}_3$  (pigskin); after-tanning was with 2-6% PL  
(shaved wt.). Optimum dosage is 4% PL and 0.7%  $\text{Cr}_2\text{O}_3$   
(hide substance wt.) for sheepskin and 1.5% for pigskin.  
The leather, for haberdashery use, equalled vegetable-  
tanned leather. B. Z. Kamich

CA

ARBUZOV, S.V.

29

Emulsifying paste for fat-liquoring leather. S. V. Ar-  
buzov and I. N. Vretennikov. *Legkaya Prom.* 11, No. 5,  
28-41(1951).--The paste (I), prepd. from sapond., syn-  
thetic fatty acids in oxidation of petrolatum, gives sufficiently  
stable emulsions with all liquid fats used in leather manuf.,  
with solid fats, and paraffin. A 2% emulsion has a pH of  
7.4-8.0. Fat liquoring with I and in combination with  
other fats had no harmful effect on leather and did not  
lower adhesion of films to leather. I is more economical  
than sulfated fish oil. Compos. of mixts. for various leath-  
ers are given. B. Z. Kamich

ARBUZOV, S. V.

Salt treatment of hides. P. I. Levenko and S. V. Arbutov, *Lezhnye Prom.* 14, No. 8, 30-2 (1964).—Compared with acid pickling, treatment in solns. of ammonium sulfate or other salting-out salts has the following advantages: pH of the section is equal to 6 (close to isoelec. point); penetration of tannins is more intensive and their distribution is more uniform, and strength of fibrous structure is increased, particularly on face. More com. experience is desired. H. Z. K.

ARBUZOV, S.V.; KEMPER, M.M.

Improving the quality and expanding the assortment of bristle and  
brush products. Leg.prom. 14 no.9:10-11 S '54. (MLBA 7:9)  
(Brooms and brushes)

ARBUZOV, S. V.

ARBUZOV, S. V. -- "Use of Formalin in the Combined Tanning of Tough Skins for Boot and Shoe Soles." Min Higher Education USSR, Moscow Technological Inst of Light Industry imeni L. M. Kaganovich, Moscow, 1955. (Dissertations for the Degree of Candidate in Technical Sciences)

SO: Knizhnaya Letopis: No. 39, 24 Sept 55



ARBUZOV, S.V.; FRIDMAN, B.I.; SHIFEL'MAN, L.V.

An experiment in smoothing stiff hides by machine. Log.prom.15  
no.10:42-44 0 '55. (MLRA 9:1)  
(Hides and skins)

ARBUZOV, S.V., inzhener; ~~SELEZNEV~~, M.N.; inzhener.

Increasing the water repellence of Russian footwear leather  
made from the hide of young cow. Leg. prom. 16 no.1:36-37  
Ja '56. (Leather industry) (MIRA 9:6)

ARBUZOV, S.V.  
ARBUZOV, S.V., inzh.

Loading sole leather by alkali swelling of the raw hide fixed by  
a formaldehyde solution. Leg.prom. 16 no.10:44-47 O '56. (MIRA 10:12)  
(Tanning)

ARBUZOV, Semen Vasil'evich; AMBURG, S.L., retsentsent; MASLOV, I.G., redaktor;  
MEDVEDEV, L.Ya., tekhnicheskii redaktor.

[Leather industry] Proisvodstvo syromiat. Moskva, Gos.nauchno-  
tekhn.isd-vo lit-ry po legkoi promyshl., 1957. 170 p. (MIRA 10:11)  
(Leather industry)

ABU ZOV. S. V.

ARBUZOV, S.V.; KVIATKEVICH, I.K.; MIKAELYAN, I.I.

Searching for new methods and means for staking chrome tanned  
skins. Leg.prom. 18 no.10:41-42 0 '58. (MIRA 11:11)  
(Tanning)

ARBUZOV, S.V.

Introduce penetrating(screw) equipment. Kozh.-obuv.prom. no.1:35  
Ja '59. (MIRA 12:6)

(Leather--Machinery)

ARBUZOV, S.V., kand. tekhn. nauk; SOLOV'YEV, N.V., inzh.

Contact method for leather moistening. Kozh.-obuv. prom. no.11:24-26  
N '59.

(Leather)

(MIRA 13:3)



ARBUZOV, S.V.; KUYATKOVICH, I.K.; MAZUROVA, Z.N.

Contact method for drying chrome leather. Kozh.-obuv.prom.  
2 no.10:27-28 0 '60. (MIRA 13:11)  
(Leather--Drying)

KVYATKEVICH, I.K., kand.tekhn.nauk, dotsent; ARBUZOV, S.V., kand.tekhn.nauk;  
Prinimali uchastiye: KRASIKOVA, Z.N.; NASYROVA, Sh.I.;  
SOLOV'YEV, N.S.; SHILOVA, Z.F.; ZAYTSEVA, L.V.; KOROTKOVA, L.N.;  
KONYL'KIN, A.F.; GLAMAZDA, V.P.; LOZHKINA, V.T.

New simplified method of leather drying and moisturizing.  
Izv.vys.ucheb.zav.; tekhn.prom. 3:43-58 '62. (MIRA 15:6)

1. Vsesoyuznyy zaochnyy institut tekstil'noy i legkoy  
promyshlennosti (for Kvyatkevich). 2. Tsentral'nyy nauchno-  
issledovatel'skiy institut kozhevenno-obuvnoy promyshlennosti  
(for Arbuzov). Rekomendovana kafedroy mashin i avtomatov  
Vsesoyuznogo zaochnogo instituta tekstil'noy i legkoy promysh-  
lennosti.

(Leather--Drying)

KOLESNIKOVA, N.I.; ARBUZOV, S.V.

Rapid (semihot) method for leather tanning at raised temperatures  
and the results of its use. Nauch.-issl. trudy TSNIKP no.33:  
7-14 '63 (MIRA 18:1)

ARBUZOV, S.V.; VAYSBERG, I. Ye.; SUCHKOV, V.G.; Prinimali uchastiye:  
LYUKSENBURG, M.S., nauchnyy sotrudnik; SHNAYDER, I.S., nauchnyy  
sotrudnik; PESKIN, Ya.I., nauchnyy sotrudnik.

New standard methodology for the manufacture of leather for  
sole parts from hogskins. Nauch.-issl. trudy TSNIKP no.33:  
3-7 '63 (MIRA 18:1)

1. TSentral'nyy nauchno-issledovatel'skiy institut kozhevenno-  
obuvnoy promyshlennosti (for Lyuksenburg, Shnayder, Peskin).

| 1ST AND 2ND CODES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | PROCESSING AND PROPERTIES INDEX |  | 3RD AND 4TH CODES |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------|--|-------------------|--|
| ARBUZOV, S. Ya.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                 |  |                   |  |
| <p>Comparative effects of anaesthetics on some functions of the central nervous system. 1. Antagonism of anaesthetics to narcotics. S. Ya. Arbuzov. <i>Farmakol. i Toksikol.</i> 7, No. 6, 31-6(1944). Tests were made with metrazole (I), coramine (II), hexetone (III), and strychnine (IV) as to activity and as to antagonism to urethan (V) and medinal (VI) in male rabbits. The highest antisoporific action was shown by I against V (1:4); against VI it was only 1:1. Though much weaker in antisoporific effect, II, III, and IV had a paralytic action, especially when given with VI. In large doses I also had a slight paralytic action when given with narcotics. As an emergency antidote for narcotic poisoning I is more effective than II, III, or IV. For biol. assays of anaesthetics against narcotics the method of latent reflex periods (dexter muscles) may be employed. The Zakusov technique (<i>C.A.</i> 34, 5541; 36, 2929) was used in these experiments. J. P. S.</p> |  |                                 |  |                   |  |
| ASB-SLA DETALLURGICAL LITERATURE CLASSIFICATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                 |  |                   |  |
| SOURCE SYMBOLS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | EXPLANATION                     |  | EXPLANATION       |  |
| SOURCE NO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | EXPLANATION                     |  | EXPLANATION       |  |
| SOURCE NO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | EXPLANATION                     |  | EXPLANATION       |  |

| C A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | PROCESS AND PROPERTIES INDEX |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------|--|
| <p><b>Antagonism and synergism between narcotics and sympathomimetic amines in their action on vertebrate central nervous system. I. Waking action of sympathomimetic amines in respect to chloral hydrate and medinal. S. Ya. Arbatov. Fiziol. Zhur. S.S.S.R. (J. Physiol.) 32, 695-710(1940).</b>—The body-temp. method was used on guinea pigs to measure the effects of the drugs on the nervous system. The narcotic dosage was 400-800 mg./kg. introduced subcutaneously in isotonic NaCl soln. In chloral hydrate narcosis, phenamin and pervitin have the strongest waking action, followed by ephedrine and sympathol; adrenaline has a very weak effect. In medinal anesthesia the effects are much weaker. The amines also cause a body-temp. rise which appears after the effect of the waking action and which appears regardless of the extent of waking action. In deep narcosis these amines severely decrease the mortality ratio. Phenamine dosage was up to 20 mg./kg., pervitin up to 600, ephedrine and sympathol up to 100. II. Changes of the latent reflex time and body temperature under action of sympathomimetic amines and the waking action of the latter in respect to narcotics. <i>Ibid.</i> 34, 645-66(1948).—In expts. with male rabbits, with Zakusov's method (<i>ibid.</i> 23, 270(1937)) for detn. of the latent reflex time on the flexor reflex of hind leg, the following was established: The min. dose for change of the latent reflex time was adrenaline <math>5 \times 10^{-4}</math>, pervitin 0.00005, phenamine 0.0001, ephedrine 0.002, and sympathol 0.01 g./kg. Tested against chloral hydrate and Na barbital, all of the above were antagonistic to chloral hydrate action (pervitin being strongest, sympathol weakest). Antagonism to barbital was not shown by pervitin and on repeated administrations some synergism was observed. Adrenaline showed antagonism at 1:1 dose ratio, while the remaining amines were intermediate. Changes of body temp. by sympathomimetic amines are analogous; in all cases temp. rises, simultaneously with lengthening of the latent reflex period. Although adrenaline in a single injection shows the least effect against chloral hydrate narcosis, repeated injections increase its "waking" effect and make it approach phenamine in this respect. Combination of phenamine with acetylcholine, physostigmine, and prostigmine leads to more pronounced shortening of chloral hydrate narcosis; with barbital the above combinations actually increase the duration of narcosis, and only a single injection of phenamine-atropine leads to noticeable denarcotization.</p> <p style="text-align: right;">G. M. Krasnov</p> |  |                              |  |
| <p>ASB-VLA METALLOGICAL LITERATURE CLASSIFICATION</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                              |  |

ARBUZOV, S.YA., BARYSHNIKOV, I.I., GUCHOK, M.M., MUKHIN, YE.A.

"The Pharmacology of Certain New Stimulators of the Nervous System  
and dMeans of Using Them in Medical Practice." p. 46 Military Medicine 1956

lecture delivered at a conference of Soviet military physicians at the  
Military Medical Academy im. S.M. Kirov, Leningrad, 29-October - 2 Nov 56.

| 1ST AND 2ND ORDERS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |  |  |  |  |  |  |  | 3RD AND 4TH ORDERS                                                           |  |  |  |  |  |  |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|
| <p><i>Cal</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |  |  |  |  |  |  |  | <p><i>11H</i></p>                                                            |  |  |  |  |  |  |  |  |  |
| <p><b>POISONING WITH GLYSANTIN AND ANTIFREEZE.</b> S. Ya. Ar-<br/>buzov. <i>Farmakol. i Toksikol.</i> 8, No. 3, 55-8(1945).<br/>The German army's glysantin (nearly identical with<br/>Prestone) sometimes contains denaturants such as mer-<br/>captans. Clinical records are presented for 8 cases of<br/>poisoning (6 fatal). The first stage of poisoning is eu-<br/>phoria, lasting about a day. The 2nd or toxic stage, with<br/>anoxemia, lasts 2-3 days. Anuria and azotemic coma<br/>may occur in 7-10 days. Oxygen therapy is beneficial<br/>along with other remedies such as glucose, strychnanthin,<br/>and a variety of analeptics. Julian F. Smith</p> |  |  |  |  |  |  |  |  |  |                                                                              |  |  |  |  |  |  |  |  |  |
| <p>ASM-ILA METALLURGICAL LITERATURE CLASSIFICATION</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |  |  |  |  |  |  |                                                                              |  |  |  |  |  |  |  |  |  |
| <p>120000 120000 120000 120000 120000 120000 120000 120000 120000 120000</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |  |  |  |  |  |  | <p>120000 120000 120000 120000 120000 120000 120000 120000 120000 120000</p> |  |  |  |  |  |  |  |  |  |



| 1ST AND 2ND UPPER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | PROCESS AND PROPERTIES INDEX |  | 1ST AND 2ND LOWER        |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------|--|--------------------------|--|
| <p>CA</p> <p>Comparative activity of optical isomers: <math>\alpha</math>-aminonico-<br/>tine and acetyl-<math>\alpha</math>-aminonico- (paracetin). S. Ya.<br/>Atkhuys, <i>Travmatol. i Toksikol.</i> 8, No. 6, 22-8 (1945). -<br/>General effects and toxicity of <math>\alpha</math>-aminonico- (I) and its<br/>acetyl active. (II) in their <math>d</math>- and <math>l</math>-forms were studied with<br/>protectors, mice, and cats. The <math>l</math>-forms were the more ac-<br/>tive and toxic. Amination lowers the toxicity of nicotine;<br/>acetylation causes another decrease, as measured by re-<br/>spiratory effects shown in the perfused isolated feline<br/>carotid reflex system. Though <math>l</math>-II is useful clinically for<br/>depressed tones of the respiratory center and other re-<br/>spiratory disturbances, <math>l</math>-I is too toxic and <math>d</math>-II is not active<br/>enough. Tests on feline superior cervical sympathetic<br/>ganglia showed high activity, and there are other instances<br/>of desirable pharmacodynamic effects of I and II. More-<br/>over, they are easy to manuf. from tobacco by-products<br/>and so are readily available. Julian P. Smith</p> |  | <p>11H</p>                   |  | <p>1ST AND 2ND LOWER</p> |  |
| <p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | <p>EXHIBITION</p>            |  | <p>1ST AND 2ND LOWER</p> |  |
| <p>1ST AND 2ND LOWER</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | <p>1ST AND 2ND LOWER</p>     |  | <p>1ST AND 2ND LOWER</p> |  |

11 H

Comparative influence of analeptics on some functions of the central nervous system. II. Effects of analeptics after bleeding. S. Ya. Arbutov. *Farmakol. i Toksikol.* 9, No. 6, 3-9 (1946); cf. C.A. 40, 6172. — Effects of corazole (I), cardamine (II), and strychnine (III) on reflex time, respiration, and blood pressure were tested on rabbits before arteriotomy. The action of I, II, and III was intensified by arteriotomy; the min. effective, spasmotic, and lethal doses were lessened, while sensitivity of nerve centers to analeptics was sharply increased. To prevent toxic action, especially by analeptics having spasmotic effects in small doses, a liquid blood substitute should precede the analeptic. The min. doses (in g./kg.) for affecting the latent reflex period, before and after arteriotomy were, resp.: I, 0.005 and 0.0025; II, 0.01 and 0.005; III, 0.0001 and 0.0001, given intravenously in each case.

Julian F. Smith.

CA

//H

Antagonism and synergism between narcotics and sympathomimetic amines in their action on central nervous system of vertebrates. III. Role of sympathetic nervous system on narcotic action and phenylalkylamines action on central nervous system of cold-blooded animals. S. Ya. Arbusov, *Fiziol. Zhur. S.S.S.R.* 36, 496-500(1950); *Engl. transl.* *Can. J. Zool.* 28, 7141g.—In a study of normal and sympathectomized frogs the min. a.-c. current that caused tetanic convulsions was detd. In normal animals the increased value of the min. current under influence of the chem. agents places the latter in the following descending order of activity: perritin, phenamine, ephedrine, sympatol, adrenaline; in sympathectomized frogs the order is perritin, phenamine, adrenaline, ephedrine, sympatol. Duration of action of narcotics in intact animals is lowered by small and moderate doses of phenylalkylamines (more effective with chloralhydrate than with medinal). Antagonism to narcotics is strongest with phenamine, perritin, and ephedrine; at high dosages narcotics and phenylalkylamines are synergistic. In sympathectomized animals the antagonism is weak and at medium or high dosage only synergy is observed.  
(I. M. Komolapoff)

CA

11-H

Antagonism and synergism between narcotics and sym-

pathomimetic amines in their action on the central nervous system of vertebrates. IV S. Ya. Arbuzov. *Fiziol. Zhur. S.S.S.R.* 36, 704-11(1950); cf. *C.A.* 43:7141g; 45, 4827h. The comparative action of adrenaline, sympathol, ephedrine, phenamine (benzedrine?), pervitin, chloral hydrate, and medinal on sympathectomized rabbits was studied, with body temp., reflex time, and length of narcotic states as the index. The sympathectomized animals show enhanced sensitivity to narcotics, more to medinal than to chloral hydrate. If all neck ganglia are removed the narcotic state is lengthened 2-3 times. Phenylalkylamines change the reflex time by the removal of the 2-phase reaction, with predominance of the hindering component. Antagonism between the 2 sets of drugs is weakly expressed and reestablishment of body temp. lags far behind the waking period, and the amines only partly compensate the disturbance of the nervous system by the operative means. Animals lacking all neck sympathetic ganglia show very weak waking processes and the action of pharmacol. stimulants is lowered.

G. M. Korolupoff

Chair of Pharmacology of the Military Med. Acad. im. S. M. Kirov.

11A

Waking action of sympathomimetic amines and analeptics in hibernating animals. S. Ya. Arbutov. *Doklady Akad. Nauk S.S.S.R.* 74, 850-02 (1980). Expts. on bats, hedgehogs, and related animals were conducted at 2-5° under hibernation conditions, with detn. of subcutaneous temp. (thermocouple method), with or without administration of phenamine (0.001-0.005 g./kg.), pervitin (0.0005-0.002 g./kg.), ephedrine (0.002-0.01 g./kg.), sympatol (0.005-0.02 g./kg.), adrenaline (0.0001-0.0005 g./kg.), metrazole (0.005-0.02 g./kg.), cordiamine (0.01-0.05 g./kg.), and strychnine (0.00005-0.0003 g./kg.). The toxicity of the drugs was reduced in hibernation (general depression of the central nervous system at this time appears to be a protective mechanism). Sympathomimetic amines and analeptics interrupt the sleep of hibernating animals, and most effective are: phenamine, pervitin and metrazole; sympatol and adrenaline are least effective. Hedgehogs are most convenient exptl. animals, and bats the least, for expts. of this nature. The evolutionary scale of the animals is thus of significance.

G. M. Kosolapoff

CA ARBUSOV, S. Ya.

11 H

Toxicity of sympathomimetic amines and analeptics during action on hibernating animals. S. Ya. Arbuzov. *Doklady Akad. Nauk S.S.S.R.* 76, 183 (1951); cf. C. 4, 49, 3070a.  
Expts. with bats and muskies done in the dark at 2-5° (controls kept in usual illumination at 19-21°) gave the following values of toxic doses in hibernating and normal states, resp. for bats: phenamine 0.1 g./kg. and 0.025, pervitin 0.05 and 0.01, ephedrine 0.4 and 0.05, sympathol 0.0 and 0.12, adrenaline 0.05 and 0.025, corazole 0.1 and 0.05, cordiamine 0.2 and 0.1, strychnine 0.005 and 0.0003; for muskies the values were: phenamine 0.2 and 0.05, corazole 0.1 and 0.05, resp. Analeptics caused convulsions in hibernating specimens only as awakening proceeded. A review with 16 references is given on drug action with hibernating animals. G. M. Komolapoff

Mil Med. Acad. im. S. N. Kirov.

USSR/Medicine - Narcotics; Sym-  
pathomimetic Amines Nov/Dec 51

"Antagonism and Synergism Between Narcotics and  
Sympathomimetic Amines in Their Action on the Cen-  
tral Nervous System of Warm-Blooded Animals," S. Ya.  
Arbuzov, Chair of Pharmacology, Military Medical  
Academy Imeni S. M. Kirov

"Fiziol Zhur SSSR" Vol XXXVI, No 6, pp 704-711

Studied comparative and combined effects of adren-  
alin, sympathol, ephedrine, phensamine, pervitin  
and narcotics chloral hydrate and medinal on sym-  
pathectomized rabbits with respect to reflex time,

206T76

USSR/Medicine - Narcotics; Sym-  
pathomimetic Amines (Contd 1) Nov/Dec 51

body temp, and time of narcosis. Sympathectomized  
animals exhibit heightened sensitivity to narcotics.  
Duration of narcosis in animals lacking all cervi-  
cal sympathetic ganglia is 2-3 times greater than  
normal; shorter than that when only upper ganglia  
are removed. Antagonism of phenylalkylamines to  
narcotics is weakly expressed in sympathectomized  
animals: their action does not fully compensate  
lost function of sympathetic nervous system. Stimu-  
lating action of phenylalkylamines is stronger on  
warm-blooded animals as compared with cold-blooded

206T76

ones due to pronounced development in warm-blooded  
animals of suprasegmentary parts of the nervous  
system. Phenylalkylamines act on these parts di-  
rectly.

206T76

ARBUZOV, S. Ya.

USSR/Medicine, Biology - Pharmacology Jan/Feb 52  
 "The Effect of Chemical Agents on Hibernating  
 Animals," S. Ya. Arbutov, Leningrad

"Uspekhi Sovrem Biol" Vol XXIII, No 1, pp 117-142

Summarizes USSR and foreign work on the effects  
 which physiologically active agents have on hiber-

nating animals, with particular attention to his  
 own research on the action of sympathomimetic

drugs and anesthetics on intact animals. Discusses the  
 detailed data on hibernating animals. Discusses the

of hibernation as well as on hibernating animals. Discusses the  
 of hibernation and vagotomized animals. 207167

USSR/Medicine, Biology - Pharmacology Jan/Feb 52  
 (Contd)

role of ascorbic acid in hibernation, the effects  
 which the sympathetic nervous system and the veg-

etative system in general have on hibernation and  
 the action of drugs during it (an approach which

was used extensively in research done at the Chair  
 of Pharmacol, Mil Med Acad (Imeni S.M.Kirov), and

describes work by T.M. Turpayev (cf. "Dok Ak Nauk  
 SSSR" Vol IX, No 8, 1473-1476, 1948) demonstrating

that low temps inhibit the action of acetylcholine  
 on the isolated heart of a marmot, but not the stand-

point of I.P. Pavlov's and K.M. Bykov's theories. 207167

ARBUTOV, S. YA.



ANBUZOV, S.Ya.

Antagonism of phenamine, corazole and their mixtures to methyl and ethyl alcohols and to ethylene glycol. *Fiziol. zh. SSSR* 38 no.3:337-343 May-June 1952.  
(GLML 23:2)

1. Department of Pharmacology, Military Medical Academy imeni S. M. Kirov.

Arbuzov, S. Ya. 1953.

3

1. 8-Phenylisopropylamide of nicotinic acid (Phenatiaz).  
 S. Ya. Arbuzov, L. A. Kankhova, S. G. Kurnetsov, and P.  
~~Ya. Kankhova~~. *Sbornik Statei Obshchei Khim., Akad.*  
*Nauk S.S.S.R.* 1, 714-15 (1953).—Nicotinoyl chloride (b.p.  
 71-2°, 28.5 g.) was slowly added in 30 ml.  $C_6H_6$  to 27 g.  
 $PhCH_2CHMeNH_2$  in  $C_6H_6$  with cooling, after which the  
 mixture was refluxed 1 hr., washed with  $H_2O$ , dil. HCl and  
 $Na_2CO_3$  yielding 89.4% 8-phenylisopropylamide of nicotinic  
 acid (I), m. 98-100° (from  $C_6H_6$ ); I (24 g.) in abs. EtOH  
 treated with 23.61 g. 83%  $H_3PO_4$  in EtOH, followed by a  
 little  $Et_2O$  gave a ppt. of 90% I phosphate,  $C_{11}H_{14}ON_2 \cdot 2H_3PO_4$   
 (II) m. 160-2° (from EtOH- $Et_2O$ ); pure product, m.  
 182°. II is sol. in  $H_2O$  and warm alc. but is not hygroscopic;  
 it is insol. in  $Et_2O$ . I and II can be boiled in aq.  
 soln. 2-3 hrs. without change.  
 G. M. Kosolapoff

MA

Jan

ARBUZOV, S. Ya.

Chemical Abst.  
Vol. 48 No. 9  
May 10, 1954  
Biological Chemistry

①  
Effects of phenatin on recovery processes in the peripheral nervous system. V.S. Ya. Arbuzov. *Farmakol. i Toksikol.* 16, No. 5, 13-16 (1953).—Intraperitoneal injection of phenatin in physiol. salt soln. lowered recovery time after sciatic nerve injury from 7.3 and 31.2 days (start of recovery and completion) to 4.8 and 18.8 (dose 1 mg.) or 4.1 and 14.5 days (dose 3 mg.) in mice; the injections were given only on the 1st, 2nd, and 3rd days. In rabbits, dose 2 mg., the change was from 17 and 46 to 4.4 and 31.4 days, resp. Phenatin is the condensation product of phenamine and nicotinic acid.  
Julian F. Smith

Military Med. Acad. im. S.M. Kirov.

ARBUZOV, S.Ya., doktor meditsinskikh nauk.

Letter to the editor. Farm. i toks. 16 no.6:59 M-D '53. (MLRA 7:1)  
(Respiration) (Pharmacology) (Gorelik, A.M.)

USSR/Medicine - Physiology

ARBUZOV, S. Ya.

FD-1347

Card 1/1 : Pub. 33-25/25

Author : Arbuzov, S. Ya., Leningrad

Title : Importance of N. P. Kravkov's work in the development of Russian Pharmacology (on the occasion of 30 years since his death)

Periodical : Fiziol. zhur. 4, 515-524, Jul/Aug 1954

Abstract : This article eulogizes the prominent Russian naturalist and pharmacologist Nikolay Pavlovich Kravkov (1865-1924) on the occasion of 30 years since his death. N. P. Kravkov had done extensive experimental work and laid the foundation for the development of experimental pharmacology in the USSR. He made a considerable contribution to the State Pharmacopoeia which was published after his death.

Institution :

Submitted : April 5, 1954

ARBUZOV, S.Ya., professor; D'YACHENKO, P.K., kandidat meditsinskikh nauk  
SHANIN, Yu.N.

Drugs used in surgery under general hypothermia. Vest.khir. 76  
no.7:60-73 Ag '55. (MLRA 8:10)

L. Iz kafedry farmakologii (nach-prof. S. Ya. Arbutov) i kliniki  
obshchey khirurgii (nach-prof. V.I. Popov) Voenno-meditsinskoy  
ordena Lenina akademii im. S.M. Kirova.

(BODY TEMPERATURE

hypothermia in surg., chemother in)

(SURGERY, OPERATIVE

controlled hypothermia with chemother.)

(CHEMOTHERAPY

in surg. under hypothermia)

ARBUZOV, S. Ya., BARYSHNIKOV, I. I., VINGORADOV, V. M., and SHANIN, Yu. N.

"Pharmacological Characteristics of Certain New Ganglion-Blocking and Neuroplegic Agents Used in General Anesthesia and Hypothermia," a paper from the book Theses of the Reports of the Scientific Session of the Military Medical Academy im. S. M. Kirov, Tezisy Dokladov Nauchnoy Sessii, 29 Oct-2 Nov 1956, Leningrad.

ARBUZOV, S. Ya., MIKHEL'SON, M. Ya., et al.,

"Summary of Organic Phosphorus Conference in Kazan," Khim. Nauka i  
Prom., v. 1, no 1, 1956, p. 109.



AFBIZOV, S. Ya.

Med ✓ Pharmacology of thiophenatine. S. Ya. AFBIZOV.  
Farmakol. i Toksikol. 19, No. 1, 16-21(1950).—Thiophena-  
tine,  $C_8H_7NCSNHCHMeCH_2Ph$ , is a new hypotensive  
drug, L.D.<sub>50</sub> (subcutaneous, mice) 3.1 g./kg. as against  
1.3 g./kg. for phenatine; it is a vasodilator in tests with  
isolated rabbit ears. Its hypotensive effect surpasses that  
of phenatine both in magnitude and duration; it persists  
even after bilateral vagotomy and denervation of both ca-  
rotid sinuses. It has reflex action on vasomotor and respira-  
tory nerve centers, prolonging the latent period of reflexes.  
It showed no pos. influence on the healing process in dam-  
aged sciatic nerve.

Julian F. Smith

Chair of Pharmacology and Pharmacy, Military Med. Acad. in S. M. Kirov

ARBUZOV, S. Ya.

✓ 3838 Effect of phenatin and some of its  
topoisomers

In a series of experiments it was found that this prep  
considerably increases the no. of leucocytes. In experiments with  
the administration of phenatin for the treatment of animals poisoned  
with benzene favourable results were also obtained. Thiophenatin  
and ethanoltiophenatin had no influence at all on the blood  
picture (haematopoietic properties).

Country : USSR  
Category: Human and Animal Physiology. Action of Physical Factors. Ionizing Radiation.  
Abs Jour: RZhDiol., No 19, 1958, 89374  
Author : Arbuzov, S. Ya.; Inosova, Ye. M.  
Inst :  
Title : The Effect of Phenatin on the Course and Result of Damage by Penetrating Radiation.  
Orig Pub: Fiziol. zh. SSR, 1957, 43, No 12, 1191-1194.

T

Abstract: Rabbits (50) were irradiated with 800 r ( $\text{Co}^{60}$ ) with a dose intensity of 4.87 r per minute. One part of the animals was given for a period of 24 hours and 30 minutes prior to the irradiation 1-3 mg/kg doses of phenatin (P; a product of condensation of phenamine and nicotinic acid).

Card : 1/2

T-142

ARBUZOV, S.Ya. prof., MIKHAYLOV, V.P., porf.

Conference on radiobiology, devoted to the 250th anniversary of the founding of Leningrad. Med.rad. 3 no.2:88-92 Mr-Apr'58 (MIRA 11:5)

1. Iz otdela radiobiologii Instituta eksperimental'noy meditsiny AMN SSSR.

(RADIOBIOLOGY)